



Data Dictionary

Field	Required Definition	Suggested Source of Data
Patient characteristics		
LATITUDE Record ID	Automatically generated by REDCap	REDCap
Age	In completed years at time of laparoscopy	Clinical letters / notes
Previous extensive abdominal wall repair or LATI-H hernia repair prior to laparoscopy	Yes / No (exclusion criterion)	Operation notes Clinical letters / notes
Sex at birth	Birth sex (Female / Male)	Clinical letters / notes
Height	Measured in centimetres (cm); within 1 year of index procedure	Drug charts Clinical letters / notes Admissions clerking Referral letters
Weight	Measured in kilograms (Kg); within 3 months of index procedure	
Smoking status	Current, Previous (stopped smoking <6 weeks), Previous (stopped smoking 6 weeks – 1 year), Previous (stopped smoking >1 year), Never smoked	
Previous abdominal or pelvic surgery	Yes – any open abdominal or pelvic procedure / Yes – Laparoscopic or robotic surgery only / No	
Previous pregnancy	Yes – not currently pregnant, Yes – currently pregnant, No - never	
Were all previous pregnancies singleton?	Yes, No – twins, No – triplets, No – other (free text)	
Parity to ≥ 38 weeks	Number of children born (whole integer)	
Gravidity carried to ≥ 26 weeks	Number of pregnancies (whole integer)	
Number of previous caesarean sections	Number of caesarean sections (whole integer)	
Dates of caesarean sections	Repeating fields with date MM/YYYY	
Were any of the caesarean sections done as an emergency?	Yes / No	
Occupation classification	Managers, directors and senior officials, Professional occupations, Associate professional occupations, Administrative and secretarial occupations, Skilled trades occupations Caring, leisure and other service occupations, Sales and customer service occupations Process, plant and machine operatives, General labour (i.e. security, factory, construction, groundwork, other physical trades), Other	Clinical letters / notes Admissions clerking



Field	Required Definition	Suggested Source of Data
Performance Status	Asymptomatic, completely independent and ambulatory / Symptomatic but completely independent and ambulatory / Symptomatic, in bed < 50% of the day / Symptomatic, in bed > 50% of the day but not bedbound / Bedbound	Clinical letters / notes Admissions clerking
Long-term health conditions	Tick all which apply or select 'none' Previous myocardial infarction, Ischaemic heart disease, Peripheral vascular disease Congestive cardiac failure (NYHA I / II / III / IV), Cerebrovascular disease, Dementia, Previous TIA / stroke, COPD, Peptic ulcer disease, HIV/AIDS, Diabetes Mellitus, Mild liver disease, Moderate / severe liver disease (cirrhosis), Cancer without metastases, Lymphoma / leukaemia, Rheumatologic disease, Inflammatory Bowel Disease, Metastatic cancer, Chronic Kidney Disease, Venous thromboembolism, Connective tissue disorder Fibromyalgia, Chronic pain syndrome	Drug charts Clinical letters / notes Admissions clerking Referral letters
If the patient has cardiac failure, what is the NYHA classification?	I / II / III / IV (available at https://www.heartonline.org.au/media/DRL/New_York_Heart_Association_(NYHA)_classification.pdf)	Clinical letters / notes Admissions clerking
Stage of chronic kidney disease	I / II / IIIA / IIIB / IV / V	Clinical letters / notes Admissions clerking Laboratory systems
History of diabetes mellitus	Yes - Type I / Yes - Type II (diet controlled, tablet controlled, insulin controlled)	Clinical letters / notes Admissions clerking Drug charts
Immunosuppression (non-cancer)	No, Yes – oral steroids, Yes – oral DMARDs (Azathioprine, methotrexate), Yes – biologics	
Active cancer and/or cancer treatment	No / Yes - curative intent / Yes - palliative intent / Yes - end of life	
Does the patient take any anti-platelet medication or anti-coagulants?	Yes / No	Drug charts Clinical letters / notes
Select antiplatelet / anticoagulant medication	Tick all which apply: Aspirin / Clopidogrel / Ticagrelor / Prasugrel / Dipyridamole / Ticlopidine / Warfarin / Rivaroxaban / Dabigatran / Apixaban / Edoxaban / Argatroban / Abciximab / Tirofiban	Drug charts



Field	Required Definition	Suggested Source of Data
Abdominal / pelvic pain symptoms		
Does the patient have any of the following symptoms?	Tick all which apply or select 'none' Pelvic pain, Pain worse on exercise or lifting, Lower abdominal pain, Lower back pain, Bulge / lump in the lower abdomen, Pressure / heaviness, Nausea / vomiting, Bowel obstruction symptoms, Cosmetic concerns around the lower abdomen, Bloating Irritable bowel syndrome, Difficulty conceiving (requiring fertility treatments) Deep dyspareunia, Other (free text)	Clinical letters / notes Admissions clerking Referral letters GP systems Operation notes
How long has the pelvic pain been present for?	Duration in months	
Does the patient menstruate?	Yes, No – Post-menopausal, No – Perimenopausal, No – Hysterectomy, No – On contraceptive pill / injection or device, No – Hormone or endocrine for amenorrhoea	
Are the symptoms cyclical in nature?	Yes, No	
When did the first symptoms start?	Approximate month (MM/YYYY)	
When did the pelvic pain start?	Approximate month (MM/YYYY)	
When did the stabbing / back / lumbar pain start?	Approximate month (MM/YYYY)	
Has the patient ever had a diagnosis of endometriosis or pelvic inflammatory disease	Yes – Endometriosis, Yes – Pelvic inflammatory disease, No - Neither	
Could any of these symptoms be attributable to incisional hernia?	Yes, No	
Has the patient been referred or assessed for these symptoms?	Yes – has been seen in clinic by a pelvic pain specialist (gynaecologist or chronic pain service), Yes – awaiting appointment, Yes – but referral declined, No – never referred	
Has a cause for these symptoms been identified?	Tick all which apply or select 'none': Normal scan – no cause identified / Endometriosis / Pelvic Inflammatory Disease / Rectal Prolapse / Vaginal or Uterine prolapse / Adenomyosis / Ovarian cyst / Lower Transverse Incisional / Interparietal Hernia / Incisional Hernia / Inguinal Hernia / Femoral Hernia / Other Abdominal Wall Hernia / Colorectal Cancer / Free fluid / Other finding	Clinical letters / notes Radiology systems Operation notes
Has the patient received imaging studies or a diagnostic laparoscopy for these symptoms?	Ultrasound scan / Magnetic Resonance Scan / Computed Tomography Scan / Diagnostic or Therapeutic Laparoscopy	Radiology systems Clinical letters / notes



Field	Required Definition	Suggested Source of Data
Abdominal / pelvic pain symptoms		
Investigation findings	Normal scan - no cause for symptoms identified / Endometriosis / Pelvic Inflammatory Disease / Rectal Prolapse / Vaginal or Uterine prolapse / Adenomyosis / Ovarian cyst / Hernia / Free fluid	Clinical letters / notes Admissions clerking Referral letters GP systems Operation notes
Describe other finding on imaging	Free text	
Does the patient take regular (long-term) analgesia for these symptoms?	Tick all which apply or select 'none' (long-term medicines prescribed and taken in the community, NOT acute medicines): Paracetamol / Ibuprofen / Other non-selective COX / NSAID (e.g. Diclofenac, Naproxen) / COX-2 inhibitor NSAID / Codeine / Dihydrocodeine / Tramadol / Tapentadol / Hydromorphone / Morphine / Diamorphine / Oxycodone / Fentanyl / Nefopam / Amitriptyline / Nortriptyline / Fluoxetine / Duloxetine / Pregabalin / Gabapentin / Buprenorphine / Methadone / Carbamazepine / Other analgesic (please specify)	Drug charts Clinical letters / notes GP systems
Specify other analgesia	Free text	
Has the patient lost / left or had to change occupation due to these symptoms?	No - never / Yes - changed occupation (including education) / Yes - left employment or occupation (including education)	
Has the patient had to stop or alter caring responsibilities / duties due to these symptoms?	No - never / Yes - changed responsibilities / Yes - stopped responsibilities	
WHODAS-12 (in the past 30 days)	12-item WHO Disability Assessment Schedule; each item scored None / Mild / Moderate / Severe / Extreme (or cannot do). Items: standing for long periods (~30 minutes); taking care of household responsibilities; learning a new task; joining in community activities; emotional effect of the condition; concentrating for ten minutes; walking a long distance (~1 km); washing whole body; getting dressed; dealing with people not known; maintaining a friendship; day-to-day work.	Patient reported



Field	Required Definition	Suggested Source of Data
Surgical history		
Previous abdominal or pelvic operations	Number (integer)	GP systems Clinical letters / notes Anaesthetic charts Operation notes
Have any of these procedures been open or converted to open from laparoscopic / robotic, or required an extraction port?	No, Yes	
Previous operation details	C-section / Hysterectomy / Appendicectomy / Hernia repair / Cholecystectomy / Colorectal resection / Bariatric surgery / Bariatric surgery / Liver resection / Pancreatic resection / Oophorectomy-salpingo-oophorectomy / Laparotomy (other) / Laparoscopy (other) / Other (free-text)	
Date of the last operation	DD-MM-YYYY	
Incision types for previous open procedures	Midline, Paramedian, Gridiron, Kocher, McBurney, Lanz, Chevron/Rooftop, Mercedes-Benz, Transverse, Rutherford Morison, Pfannenstiel, Joel-Cohen	
Other incision for open procedure (specify)	Free text – type of incision and location	
Date of the last caesarean section	MM-YYYY	
Incision types for previous caesarean sections	Pfannenstiel / Joel-Cohen / Transverse (other) / Midline / Oblique / Other / Not applicable (laparoscopy only)	
Specify other type of c-section incision	Free text	
Closure details for previous caesarean sections or lower transverse incision	Closure of anterior fascia but posterior fascia layer (transversalis or peritoneum) not closed, Closure of anterior fascia and closure of posterior fascia layer (transversalis or peritoneum), Bulk closure of anterior fascia but posterior fascia layer (transversalis or peritoneum), Not documented, Other (free-text)	
Intraoperative details and laparoscopy findings		
Knife to skin time	HH:MM:SS DD-MM-YYYY	GP systems Clinical letters / notes Anaesthetic charts Operation notes Theatre logbooks
Time of end of operation	HH:MM:SS DD-MM-YYYY	
ASA Grade	I / II / III / IV / V	
Operative approach	Laparoscopic / Robotic / Laparoscopic / Robotic assisted (pneumoperitoneum established) / Laparoscopic / Robotic converted to open (pneumo established) / Laparoscopic / Robotic converted to open (pneumo could not be established) / Open	Operation notes Anaesthetic charts



Intraoperative details and laparoscopy findings

Operative Urgency	Elective (planned) / Expedited (within days) / Emergency – Urgent (within hours) / Emergency – Immediate (within minutes)	Operation notes Anaesthetic charts
Indication for laparoscopy / laparoscopic surgery	List of ICD-10 codes	
Intraoperative findings on laparoscopy/ laparoscopic surgery	None – normal laparoscopy, Hernia / lower third abdominal wall adhesions identified, Other non-hernia pathology	Clinical letters / notes Operation notes
Other finding at laparoscopy / laparoscopic surgery	Free text	

Field

Required Definition

Suggested Source of Data

Intraoperative details and laparoscopy findings

Number of defects	Number (integer)	Clinical letters / notes Operation notes Intraoperative findings Implant stickers
Hernia defect size	Height x Width (estimated cm)	
Hernia type	Lower Transverse Incisional (LATI), Incisional ventral, Umbilical, Paraumbilical, Other incisional, Port-site hernia, Inguinal	
Hernia contents	Empty Sac, Adhesions, Omentum, Mesentery, Small bowel, Large bowel, Uterus, Fallopian tube, Ovary, Bladder, Other (free-text)	
Adhesions present	No, Yes – film, Yes – dense	
Zanellato's classification of hernia	Type 1, Type 2, Type 3, Type 4, Type 5, Type 6	
Did the hernia / adhesions require mobilisation or taking down from abdominal wall	No, Yes – blunt dissection, Yes – sharp dissection	
Was any abdominal wall repair or other reduction performed?	No, Yes- Reduction only, Yes - Suture repair, Yes – Component separation	
Was a mesh repair used?	No / Yes – Synthetic non-absorbable mesh / Yes – Synthetic absorbable mesh / Yes – Biological mesh / Yes – Hybrid mesh	
Type of mesh	Synthetic – non-absorbable, Synthetic – absorbable, Biological, Hybrid	
Mesh placement	On-lay, Inlay / interposition, Retrorectus, preperitoneal, intraperitoneal	



Field	Required Definition	Suggested Source of Data
30-day outcomes		
Any postoperative complications within 30-days?	No, Yes	Clinical letters / notes Patient information systems Discharge summaries Operation notes
Reintervention	No, Yes – outside of theatre, Yes – return to theatre	
Mortality within 30-days	No, Yes – in-hospital, Yes – out of hospital	
Complications with Clavien-Dindo Grade	Full list of complications and Clavien-Dindo grading	
Date of death / discharge	DD-MM-YYYY	
Date of out of hospital death	DD-MM-YYYY	
Discharge Destination	Discharge to a domestic home or usual place of residence with no new or additional health or social care needs / Discharge home (or a temporary place) with new or additional health and/or social care support to aid recovery / Discharge to a short-term community bed-based setting (community hospital, rehabilitation unit, or hospice) with dedicated recovery support / Discharge to a new care home or nursing facility for people likely to need long-term 24-hour care	Discharge summaries Clinical letters / notes
30-day hernia-specific complications	Maximal severity recorded for each complication on the grid None / Grade I / Grade II / Grade IIIa / Grade IIIb / Grade IVa / Grade IVb / Death. Complications: Seroma; Surgical Site Infection (SSI); Wound Dehiscence; Repair Dehiscence; Haematoma / Bleeding; Urinary Retention; Bowel Injury; Bladder Injury; Pain; Mesh Infection; Mesh Explant; Enteric / Enterocutaneous Fistula; Mesh Migration; Bowel Obstruction.	Clinical letters / notes Operation notes Discharge summaries